

Sustainable Food Safety 201



PEAK SHIFT

CHAPTER 11

Safe Facilities and Equipment

Cleanable construction, protected water, safe operating decisions

2026 FDA model Food Code | Chapters 4, 5 and 6; 8-201.11; 8-404.11

BASIS: 2026 FDA MODEL FOOD CODE



Review the Plan Before Building

Submit first

Plans need review and approval before construction or conversion to a food establishment.

Changes

Remodeling or operation changes require plans when the regulatory authority determines they are needed.

Show the operation

Include menu, volume, layout, finishes, equipment capacity, and required management-system evidence.

A floor plan should explain how the actual menu can be handled safely.

Match Building Materials to Exposure

Operating areas

Use smooth, durable, easily cleanable surfaces; moisture-exposed areas also need nonabsorbent materials.

Carpet limits

No carpeting in preparation, walk-ins, warewashing, toilet-fixture areas, or refuse storage rooms.

Details

Keep mats removable and cleanable; exposed utility lines cannot obstruct cleaning.

A washable-looking surface is not enough if moisture enters it.

Coving Follows the Cleaning Method

Without flushing

Cove floor-wall junctions and close gaps to no larger than 1/32 inch (1 mm).

With water flushing

Cove and seal junctions; provide floor drains and floors graded to drain.

A curved junction helps cleaning; the cleaning method determines the complete requirement.

Food Contact Changes the Material Standard

Food-contact surfaces

Safe, durable, corrosion-resistant, nonabsorbent, smooth, and able to withstand repeated warewashing.

Nonfood-contact surfaces

Splash-exposed or frequently cleaned surfaces also need smooth, nonabsorbent, corrosion-resistant material.

Cleanable design

Avoid cracks, open seams, and inaccessible soil traps; identify where food can drain or splash.

Classify the surface by what can reach food, not by its name.

A Material Allowance Has Boundaries

Wood

Hard maple or equally hard, close-grained wood is allowed for listed uses such as cutting boards.

Reactive metals

Copper generally cannot contact food below pH 6; galvanized metal cannot contact acidic food.

Cast iron

Allowed for cooking and for serving only in an uninterrupted cooking-through-service process.

Match the specific material, food, and use before deciding.

Certification Does Not Finish the Compliance Check

What it establishes

Qualifying sanitation certification deems equipment compliant with material and design provisions.

What remains

Installation, capacity, operation, cleaning, maintenance, and local acceptance still need verification.

Check what a certification covers, not simply whether a sticker exists.

Fixed Floor Equipment: Seal or Elevate

General rule

Not easily movable: seal to the floor or provide at least 6 inches (15 cm) underneath.

Shallow access

4 inches is allowed only if every floor point beneath is within 6 inches of cleaning access.

Retail display exception

Specified display units in retail consumer shopping areas are exempt if the floor beneath stays clean.

Measure access depth before claiming reduced clearance.

Fixed Counter Equipment Has Different Clearances

General rule

Not easily movable: seal to the counter or elevate at least 4 inches (10 cm).

3-inch exception

Every tabletop point beneath must be no more than 20 inches from cleaning access.

2-inch exception

Every tabletop point beneath must be no more than 3 inches from cleaning access.

Keep the vertical clearance separate from the horizontal cleaning reach.

Check Around and Above Equipment Too

Sides and rear

Provide cleaning access, close spacing no greater than 1/32 inch, or sealing where spillage/seepage applies.

Overhead risks

Do not locate equipment beneath unshielded sewer lines, leaks, or condensation sources.

Model Code detail

Water-based fire-protection pipes, tubes, and hoses are included in the leak/condensation provision.

A correct leg height does not make the whole installation acceptable.

Capacity and Readings Must Match the Job

Capacity

Provide enough cooling, heating, and holding capacity to meet required food temperatures.

Storage sensors

Measure the warmest refrigerator zone or coolest hot-storage zone; air is not food temperature.

Warewashing

Keep the data plate readable and required temperature/pressure controls usable for that machine.

A running machine is not proof of the result it must deliver.

Repair the Defect, Not Just the Appearance

Components

Keep doors, seals, hinges, fasteners, and kick plates intact, tight, and properly adjusted.

Cutting surfaces

Resurface when effective cleaning and sanitizing fail; discard if resurfacing cannot restore them.

Daily condition

Maintain the building and plumbing; clean without exposing food to repair debris or dust.

Sanitizer cannot repair a surface that is no longer cleanable.

Verify the Water Source and Peak Supply

Source

Use approved public water or a lawful, approved nonpublic system meeting applicable quality standards.

Nonpublic records

Sample/test at least annually and as state rules require; retain the latest report as required.

Capacity

Provide enough water and hot water for peak demand; required fixtures generally need water under pressure.

After disruption

Flush and disinfect after construction, repair, modification, or an emergency that may contaminate the system.

Clear water and an old passing report are not current proof of safety.

A Cross-Connection Is the Path; Backflow Is the Movement

Cross-connection

A link that can connect drinking water to nonpotable water or another contamination source.

Backflow

Unwanted reverse movement into the water supply; pressure changes can drive it.

Manager action

Prevent the connection and verify required protection before a hose or fitting is used.

The path can exist before anyone observes reverse flow.

Measure an Air Gap from the Flood-Level Rim

Calculation

At least twice the water-supply inlet diameter, and never less than 1 inch (25 mm).

Reference point

Measure the open vertical space between the supply outlet and the fixture's flood-level rim.

Protect the gap

An attached hose must not bridge the separation into contaminated liquid.

Use the larger of two diameters or one inch.

A Backflow Device Must Fit Its Application

Select correctly

Use an approved device meeting the applicable design, installation, inspection, and testing standard.

Provide access

Locate the device so it can be serviced and maintained.

Keep evidence

Schedule inspection/service by instructions and local water conditions; maintain records.

A filter is not automatically a backflow preventer.

Keep Sewage Out of Food Equipment

Drain protection

Generally no direct sewage connection from equipment holding food, portable equipment, or utensils.

Exceptions

Specific building floor drains and lawful warewashing or culinary connections have stated conditions.

Disposal

Use an approved sewage system; keep any grease trap accessible for cleaning.

Water-supply protection and waste-drain protection solve different problems.

Handwashing Must Be Convenient and Available

Location

Convenient for preparation, dispensing, and warewashing; in or immediately adjacent to toilet rooms.

Access

Keep hand sinks accessible at all times; carts, utensils, and storage cannot block use.

Dedicated use

Hand sinks are for handwashing, not dumping drinks, washing produce, or storing tools.

A sink on the plan is not useful if employees cannot reach it during service.

Hand-Sink Supply: At Least 85 F

Water

At least 85 F (29.4 C) through a mixing valve or combination faucet.

Metered flow

Self-closing, slow-closing, or metering faucet: at least 15 seconds without reactivation.

Edition distinction

The 2022 model changed the former 100 F minimum; verify the locally adopted requirement.

Do not confuse a fixture's supply requirement with handwashing duration.

Stock the Whole Handwashing Station

Cleanser

Provide hand-cleaning liquid, powder, or bar soap.

Drying

Provide disposable towels, a clean continuous-towel system, heated air, or an air-knife dryer.

Sign and waste

Post a visible employee handwashing sign; disposable towels require a waste receptacle.

Supplies, access, water, and drying must work together.

Service Sinks and Toilets Have Separate Jobs

Mop waste

Use a service sink or curbed cleaning facility with a floor drain; never a toilet or urinal.

Toilets

Provide at least one and the number required by law; keep employee access available during operation.

Toilet rooms

Provide tissue and required enclosing/self-closing doors. Covered bins: 2026, every toilet room; scored 2022+2024, sanitary-napkin bin in rooms used by females.

A convenient drain is not automatically the correct disposal fixture.

Manage Refuse from Container to Pickup

Containers

Food-residue receptacles need durable, cleanable, leakproof, nonabsorbent, pest-resistant construction.

Covers

Inside: cover food-residue containers when not in continuous use, and after filling. Outside: tight-fitting covers.

Storage and removal

Separate from food/clean items; clean safely and remove often enough to limit odors and pest attraction.

A pickup schedule is adequate only if it controls the actual accumulation.

Lighting: Distinguish Storage from Service

10 foot-candles

108 lux, 30 inches above floor: walk-ins, dry food storage, and other areas during cleaning.

20 foot-candles

215 lux: consumer food-display surfaces and inside reach-in/undercounter refrigerators.

Also 20

30 inches above floor: handwashing, warewashing, equipment/utensil storage areas, and toilet rooms.

Location and measurement point are part of the lighting rule.

Task Lighting and Breakage Protection Are Separate

50 foot-candles

540 lux at food-work surfaces or utensil/equipment work surfaces where employee safety is a factor.

Protect exposed items

Use shielded, coated, or shatter-resistant bulbs over exposed food and specified clean/unwrapped items.

Limited exception

Unopened-food-only storage needs intact, glass-resistant packages that can be cleaned before opening.

Adequate brightness does not prevent glass contamination.

Ventilation Must Not Become a Contamination Source

Capacity

Provide mechanical ventilation when needed to control excessive heat, steam, condensation, smoke, and fumes.

Air path

Design intake and exhaust so they do not contaminate food or equipment.

Maintenance

Clean ducts and change filters to prevent contamination; discharge must not create a nuisance.

A running fan does not prove effective ventilation.

Know When to Discontinue and Notify

Trigger

An imminent health hazard may exist: sewage backup, fire, flood, extended utility loss, or similar danger.

Immediate response

Discontinue affected operations and notify the regulatory authority; do not wait for confirmed illness.

Control exposure

Protect food and clean items; isolate the hazard and arrange appropriate corrective work.

A repair appointment is not permission to operate through an imminent hazard.

Continuation and Reopening Require Different Decisions

Utility continuation

Authority may agree: approved written plan, immediate risk controls, and notice when the plan is implemented.

Recovery

Restore safe utilities and conditions; use required disinfection when ordinary sanitizers do not control the pathogen.

Resume

After required discontinuation, obtain regulatory approval before resuming operations.

Utilities restored does not mean approval to reopen.

Recap | Inspect the Condition That Matters

Build and install

Match surfaces to exposure; confirm materials, capacity, access, and exact installation exceptions.

Keep controls usable

Verify water protection, dedicated hand sinks, drainage, lighting, ventilation, and maintenance.

Act on hazards

Stop affected work, notify, correct the cause, and obtain approval before required reopening.

Look for evidence that the facility supports safe work now.